

WHAT IS CLAIMED IS:

1. A method for manufacturing a printed wiring board, the method comprising steps of:

forming an opening in a first resin film;

stacking the first resin film and a plurality of second resin films having no opening;

inserting an electric device, which has substantially the same size as the opening, in the opening; and

bonding the first and second resin films together by pressing and heating the first and second resin films after the step of inserting.

2. The method in claim 1, wherein a plurality of first resin films are stacked at the step of stacking in response to a thickness of the electric device if the thickness is greater than that of the first resin film.

3. The method in claim 2, wherein the total thickness of the first resin films is substantially equal to or smaller than the thickness of the electric device.

4. The method in claim 1, wherein an electrode is formed on a surface of the electric device, wherein the surface is parallel to the second resin films, wherein a conductive layer is formed on a surface of one of the second resin films, wherein a via, which includes a via-hole bottomed by the conductive layer and a material for electrical connection filled in the via-hole,

is formed in the one of the second resin films at a position corresponding to the electrode, and wherein the electrode and the conductive layer are electrically connected by the material for electrical connection in the step of bonding.

5. The method in claim 1, wherein a conductive layer is formed on a surface of one of the second resin films before the step of stacking and wherein the conductive layer and an electrode of the electric device are electrically connected before the step of inserting.

6. The method in claim 5, wherein the electrode is formed on a surface of the electric device, wherein the surface is parallel to the second resin films, wherein a via, which includes a via-hole bottomed by the conductive layer and a material for electrical connection filled in the via-hole, is formed in the one of the second resin films at a position corresponding to the electrode, and wherein the electrode and the conductive layer are electrically connected by the material for electrical connection.

7. The method in claim 5, wherein an electrode is formed on a surface of the electric device, wherein the surface is parallel to the second resin films, wherein the conductive layer is formed as a land at a position corresponding to the electrode, and wherein the electrode and the land are electrically connected.

8. The method in claim 5, wherein an electrode is formed on a surface of the electric device, wherein the surface is parallel to the second resin films, wherein the conductive layer is formed as a land at a position corresponding to the electrode, and wherein the electrode and the land are electrically connected by wire bonding.

9. The method in claim 1, wherein the first and second resin films are made of thermoplastic resin.

10. The method in claim 9, wherein the first and second resin films are made of the same type of resin.

11. The method in claim 9, wherein the first and second resin films are heated at a temperature, at which the elastic modulus of the first and second resin films is 1 - 1000 MPa, in the step of bonding.

12. The method in claim 1, wherein the method includes a step of forming a heat releasing member on a surface of a stacked body of the first and second resin films after the step of inserting.

13. The method in claim 12, wherein the first and second resin films and the heat releasing member are bonded together by pressing and heating a stacked body of the first and second resin films and the heat releasing member after the step of

forming the heat releasing member.

14. A method for manufacturing a printed wiring board, the method comprising steps of:

forming a recess or an opening in a sheet member;

stacking a plurality of resin films;

placing the sheet member on an outer surface of or in a stacked body of the resin films, wherein the stacked body is formed at the step of stacking;

inserting an electric device in the recess or the opening;

and

bonding the resin films and the sheet member by pressing and heating the resin films and the sheet member after the step of inserting.

15. The method in claim 14, wherein the recess and the opening has substantially the same size as the electric device.

16. The method in claim 15, wherein a depth of the recess and the opening is substantially equal to or smaller than a thickness of the electric device.

17. The method in claim 14, wherein an electrode is formed on a surface of the electric device, wherein the surface is parallel to the resin films, wherein a conductive layer is formed on a surface of one of the resin films, wherein a via, which includes a via-hole bottomed by the conductive layer and a

material for electrical connection filled in the via-hole, is formed in the one of the resin films at a position corresponding to the electrode, and wherein the electrode and the conductive layer are electrically connected by the material for electrical connection in the step of bonding.

18. The method in claim 14, wherein the resin films and the sheet member are made of thermoplastic resin.

19. The method in claim 14, wherein the resin films and the sheet member are made of the same resin.

20. The method in claim 19, wherein the resin films and the sheet member are heated at a temperature, at which the elastic modulus of the resin films and the sheet member is 1 - 1000 MPa, in the step of bonding.

21. The method in claim 14, wherein the method includes a step of forming a heat releasing member on an outer surface of a stacked body of the resin films and the sheet member after the step of inserting.

22. The method in claim 21, wherein the resin films, the sheet member, and the heat releasing member are bonded together in the step of bonding.

23. A printed wiring board comprising:

an insulating base member, which is made of thermoplastic resin and includes a space within the insulating base member; and

an electric device, which has an electrode and which is located in the space; and

a conductive layer located in the insulating base member, wherein the electrode and the conductive layer are electrically connected.

24. The printed wiring board in claim 23, wherein the insulating base member is an integrated body of a plurality of resin films, wherein one of the resin films has an opening, and wherein the space incorporates the opening.

25. The printed wiring board in claim 23, wherein the insulating base member is an integrated body of a plurality of resin films and a sheet member, wherein the sheet member has a recess or an opening, and wherein the space incorporates the recess or the opening.

26. The printed wiring board in claim 24, wherein the resin films have an elastic modulus of 1 - 1000 MPa at a heating temperature when the resin films are pressed and heated to make the insulating base member.

27. The printed wiring board in claim 25, wherein the resin films and the sheet member have an elastic modulus of 1 - 1000

MPa at a heating temperature when the resin films and the sheet member are pressed and heated to make the insulating base member.

28. The printed wiring board in claim 23, wherein the electrode and the conductive layer are electrically connected by a via, which includes a via-hole bottomed by the conductive layer and a material for electrical connection located in the via-hole.

29. The printed wiring board in claim 23, wherein a heat releasing member is located on a surface of the insulating base member.

30. The printed wiring board in claim 23, wherein the insulating base member is made of only one type of resin.